



10-10-03

Patent
Attorney's Docket No. 018775-795

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Hiroki YOSHIDA

Application No.: 09/605,637

Filed: June 28, 2000

For: IMAGE PROCESSING FOR IMAGE
CORRECTION

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)
) Group Art Unit: 2623

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) Examiner: Jingge Wu

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) Confirmation No.: 6560

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SEP 10 2003
Technology Center 2600

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Official Action dated June 9, 2003, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections for the reasons set forth below.

According to the present invention, image data are corrected in an image correction routine which includes extraction and correction of skin color areas. According to a preferred embodiment of the invention, when an image includes a plurality of people having different skin characteristics, the skin is corrected by taking each skin characteristic into account. For example, various types of skin areas have been classified beforehand for each skin characteristic. When the image data are received, skin areas are extracted from

the image data according to the skin type, and the image data are corrected appropriately by taking into account the skin characteristics of the skin areas. See page 6, line 23 - page 7, line 6 of the present application.

Independent claim 1 defines an image processor, wherein characteristics of a plurality of skin colors are classified beforehand. The processor includes an area extractor which extracts skin areas from input image data according to the classification of the characteristics of a plurality of skin colors. The processor further includes an image corrector which corrects image data of each of the skin areas extracted by the area extractor according to the characteristics of the skin color of each of the skin areas.

Claim 10 defines an image processing method wherein characteristics of a plurality of skin colors are classified beforehand. The method includes extracting skin areas from input image data according to the classification of the characteristics of a plurality of skin colors and correcting image data of each of the extracted skin areas according to the characteristics of the skin color of each of the skin areas.

Claims 1 and 10, among others, have been rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 5,309,228, hereinafter Nakamura. Nakamura discloses a method of extracting feature image data and a method of extracting a person's face data. However, Nakamura does not teach or suggest the combination of the present invention wherein characteristics of a plurality of skin colors are classified beforehand. This feature is important because the present invention uses the classification of the characteristics of the skin colors in order to extract skin areas from the input image

data. In addition, the present invention uses the characteristics of the skin color of the classified skin color to correct the image data of each of the skin areas extracted by the area extractor.

To help understand the significance of claims 1 and 10, the Examiner's attention is directed to Table 1 on page 8 of the present invention, where an exemplary preferred embodiment is illustrated. The present invention is not limited to the disclosed exemplary embodiment. However, according to Table 1, skin is classified into three types, white, yellow and tan. Furthermore, according to Table 1, hue and chroma correction for each of the various skin type classifications is performed differently.

By classifying the skin beforehand, enhanced correction is possible. Accordingly, the subject matter of claims 1 and 10 is clearly not taught or suggested by Nakamura.

Nakamura discloses creating histograms and using the histograms to correct color. However, it does not appear that Nakamura teaches the concept wherein characteristics of a plurality of skin colors are classified beforehand, and subsequently used to extract and correct image data. However, in view of the lengthy disclosure in Nakamura, in the event that the Examiner persists with the rejection of claims 1 and 10 based on Nakamura, the Examiner is respectfully requested to point out with specificity where Nakamura teaches that characteristics of a plurality of skin colors are classified beforehand. In the outstanding Official Action, the Examiner merely refers to large blocks of the Nakamura reference. The reference to multiple columns of text to identify each element is not

helpful. The Examiner is respectfully requested to point out with specificity where Nakamura teaches such features.

Absent further clarification, the Examiner should withdraw the outstanding rejection.

Claims 2 and 8 depend from claim 1, and claims 12, 13 and 19 dependent from claim 10. Accordingly, claims 2, 8, 12, 13 and 19 are also patentable over Nakamura.

Claims 9 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura and claims 7 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura in view of U.S. Patent No. 5,075,788, hereinafter Funda. However, claims 7 and 9 depend from claim 1, and claims 18 and 20 depend from claim 10. Accordingly, claims 7, 9, 18 and 20 are patentable over the prior art at least for the reasons set forth above with respect to claims 1 and 10. The Examiner relies upon Funda for its alleged teaching of the step of generating a correction curve by modifying a color histogram. Such teaching does not overcome the deficiency of Nakamura.

Furthermore, Applicant reserves the right to challenge the Examiner's analysis of Funda, and the motivation for combining Funda with Nakamura at a later time, if necessary and appropriate.

The indication of allowable subject matter is appreciated.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: 9-9-03

By: William C Rowland
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AMENDMENT/REPLY TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is a reply for the above-identified patent application.

☐ A Petition for Extension of Time is also enclosed.

☐ A Terminal Disclaimer and the ☐ \$55.00 (2814) ☐ \$110.00 (1814) fee due under 37 C.F.R. § 1.20(d) are also enclosed.

☐ Also enclosed is/are _____

☐ Small entity status is hereby claimed.

☐ Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$375.00 (2801) ☐ \$750.00 (1801) fee due under 37 C.F.R. § 1.17(e).

☐ Applicant(s) requests that any previously unentered after final amendments not be entered. Continued examination is requested based on the enclosed documents identified above.

☐ Applicant(s) previously submitted ___, on ___, for which continued examination is requested.

☐ Applicant(s) requests suspension of action by the Office until at least ___, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.

(05/03)

- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (1809/2809) is also enclosed.
- ☒ No additional claim fee is required.
- ☐ An additional claim fee is required, and is calculated as shown below:

AMENDED CLAIMS					
	NO. OF CLAIMS	HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	ADD'L FEE
Total Claims		MINUS =		× \$18.00 (1202) =	
Independent Claims		MINUS =		× \$84.00 (1201) =	
If Amendment adds multiple dependent claims, add \$280.00 (1203)					
Total Claim Amendment Fee					
If small entity status is claimed, subtract 50% of Total Claim Amendment Fee					
TOTAL ADDITIONAL CLAIM FEE DUE FOR THIS AMENDMENT					

☐ A total fee in the amount of \$ _____ is enclosed.

☐ Charge \$ _____ to Deposit Account No. 02-4800.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: 9-9-03

By: William C Rowland
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Registration No. 30,888

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